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10/078,713	02/19/2002	Yoshiyuki Namizuka	RCOH-1045	5363

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KNOBLE, YOSHIDA & DUNLEAVY  
EIGHT PENN CENTER  
SUITE 1350, 1628 JOHN F KENNEDY BLVD  
PHILADELPHIA, PA 19103

EXAMINER

ROSARIO, DENNIS

ART UNIT	PAPER NUMBER
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2624

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09/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/078,713

Applicant(s)

NAMIZUKA, YOSHIYUKI

Examiner

Dennis Rosario

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on RCE 8/17/07.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-10,12,13,15,16,18,19,21-24,26,27,29-37,39,40 and 42-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-10,12,13,15,16,18,19,21-24,26,27,29-37,39,40 and 42-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/8/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/17/07 has been entered.

### ***Response to Amendment***

2. The amendment was received on 7/19/07 and entered on 8/17/07. Claims 1-5,7-10,12,13,15,16,18,19,21-24,26,27,29-37,39,40 and 42-47 are pending.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-5,7-10,12,13,15,16,18,19,21-24,26,27,29-37,39,40 and 42-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 4,5 calls for "generating a set of threshold values based upon an intensity level of the inputted image data" which corresponds to fig. 10:S5 of the applicant's specification and

Claim 1, lines 6,7 calls for "determining whether or not a portion of the image data is an outline portion based upon the threshold values to generate an outline characteristic of the outline portion in the image data" which corresponds to fig. 10:S3.

Figure 10 of the applicant's application appears to generate thresholds after edge detection, while claim 1 appears to generate thresholds based upon an intensity level of the inputted image data for edge detection with no generation of thresholds after edge detection. Please indicate where in the specification that the thresholds are generated based upon an intensity level of the inputted image data wherein the thresholds are used for subsequent edge detection. It appears to the examiner that the thresholds are generated for "correcting the intensity (specification, page 13, line 2)" and not for the edge detection wherein the edge detection the thresholds are "predetermined (specification, page 10, line 23)".

### ***Drawings***

6. The ordering of new drawings is acknowledged. Upon further review of the current drawings:

how does figure 3 fit into figure 2? Figure 3 is assumed to be num. 24 in fig. 2;

how does figure 5 fit into figure 2 or fig. 3? Figure 5 is assumed to receive the output of fig. 3 and is num. 25 in fig. 2; and

how does figure 2, num. 24 fit into fig. 1? Figure 2, numeral 24 is assumed to be num. 3 in fig. 1.

***Specification***

7. The disclosure is objected to because of the following informalities:

Page 5, line 13 "image documents" ought to be amended to "image document".

Page 5, line 25: "data liner" ought to be amended to "data linear".

Appropriate correction is required.

***Response to Arguments***

8. In response to applicant's argument on page 9, lines 5,6 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "...claims 1,15 and 29 call for the 'threshold values' to be generated from each 'inputted image data' on the fly.") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. In response to applicant's argument on page 9, line 19 to page 10, line 5 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "In contrast to...the current invention... Ueta... discloses... a...fixed threshold value....In other words, the current invention requires that the threshold value should not be fixed.") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

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10. In response to applicant's argument on page 11, lines 11-13 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "...claims 1,15 and 29 now...recite the flexible threshold values according the inputted image data.") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-5,7-13,15-19,21-27,29-40 and 42-44 are rejected under 35

U.S.C. 102(b) as being anticipated by Ueta et al. (US Patent 5,748,800).

Regarding claim 15, Ueta et al. discloses a system of processing image data, comprising:

a) an operation unit (fig. 1,numerals 48 and 49).for inputting a user input value ("user inputs" in col. 3, line 65);

b) an image data input unit (fig. 1, num. 43) for inputting image data (fig. 1, num. 43: CCD LINE SENSOR captures an image based upon "user indicat[ion]" or customization in col. 10, lines 34 and 35.);

c) a threshold unit (fig. 1,num. 48 includes coefficients that are compared as indicated in fig. 3,num. 77) connected to said image data input unit for generating a set of threshold values (or two threshold values: "T0 as a small value" in col. 8, line 19 and "T0 to be a large value" in col. 8, line 23) based upon an intensity level ("small [contrast] edge areas" in col. 8, line 21 and "large contrast edge areas" in col. 8, line 24) of the inputted image data ("from the CCD line sensor" in col. 8, lines 21,22)

(note that the "contrast" of "small [contrast] edge areas" in col. 8, line 21 was assumed to be omitted; since the corresponding counter part "large contrast edge areas" has "contrast." Also, by inserting contrast into "small edge areas" makes sense to one of ordinary skill in edge detection.);

c) a space filter process unit (fig. 1,num. 47) connected (via numerals 59,44,45) to said image data input unit (fig. 1, num. 43) and said threshold unit for:

c1) determining (fig. 3, num. 77: COMPAR. is a comparator.) whether or not a portion (Fig. 2.num. 43 is a portion of an image.) of the image data (fig. 1, num. 43: CCD LINE SENSOR) is an outline portion (edge portion) based upon the threshold values to generate an outline characteristic (Output of fig. 3, num. 77:COMPAR. generates edge data.) of the outline portion in the image data; and

d) an intensity correction unit or pre-correction unit (fig. 1,num. 45:CCD SIGANL PROCESSOR performs a shading correction in col. 3, lines 35 and 36.) connected (via num. 47) to said operation unit (fig. 1,numerals 48 and 49) and said space filter process unit (fig. 1,num. 47 as shown in fig. 1) for:

d1) selecting a correction coefficient (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 81: CONT. COEF. INPUT UNIT.) from a set of predetermined correction coefficients (fig. 3, num. 49: CONT. COEF. INPUT UNIT contains "a preset...coefficient" in col. 4, lines 2-4.) based upon:

d11) a combination of the outline characteristic (Output of fig. 3, num. 77:COMPAR. generates edge data that is used by fig. 3,num. 79.) and



d12) the user input value (as shown in figures 1 and 3,numerals 48 and 49; and

e) applying the selected correction coefficient (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT which is applied via num. 82.) to the portion (Fig. 2.num. 43 is a portion of an image.) of the image data (fig. 1, num. 43: CCD LINE SENSOR).

Claim 1 is rejected the same as claim 15. Thus, argument similar to that presented above for claim 15 is equally applicable to claim 1, except that claim 1 is directed towards a method.

Regarding claim 2, Ueta et al. discloses the method of processing image data according to claim 1 wherein the image data is scanned (fig. 1, num. 43: CCD LINE SENSOR captures an image based upon "user indicat[ion]" or customization in col. 10, lines 34 and 35.).

Claim 3 is rejected the same as claim 11. Thus, argument similar to that presented above for claim 11 is equally applicable to claim 3.

Regarding claim 4, Ueta et al. discloses the method of processing image data according to claim 1 wherein said correction coefficients (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT.) include intensity correction coefficients (Fig. 3,num. 49: CONT. COEF. INPUT UNIT contains coefficients for contrast or sharpness that is based on a "shading correction" in col. 3, lines 35 and 36. Thus the contrast coefficients contain a shading value or intensity.).

Claims 5,18 and 19 are rejected the same as claim 4. Thus, argument similar to that presented above for claim 4 is equally applicable to claims 5,18 and 19.

Regarding claim 7, Ueta et al. discloses the method of processing image data according to claim 6 wherein said user input values (Fig. 3,num. 48: COMP COEF. INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67.) include an intensity notch signal (Fig. 3,num. 48: COMP COEF. INPUT UNIT is a "multi-position switch" in col. 4, lines 1 and 2.).

Regarding claim 8, Ueta et al. discloses the method of processing image data according to claim 6 wherein said user input values (Fig. 3,num. 48: COMP COEF. INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67.) include an image type signal (Fig. 3, label "IMAGE SIGNAL").

Regarding claim 9, Ueta et al. discloses the method of processing image data according to claim 6 wherein said user input values (Fig. 3,num. 48: COMP COEF. INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67.) include customize data (An image based upon "user indicat[ion]" or customization in col. 10, lines 34 and 35.).

Regarding claim 10, Ueta et al. discloses the method of processing image according to claim 6 wherein said user input values (Fig. 3,num. 48: COMP COEF. INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67.) include a background removal signal (Fig. 3,num. 49: CONT. COEF. INPUT UNIT receives an user input for correcting contrast or "suppressing contrast... noise" in the abstract.).

Regarding claim 11, Ueta et al. discloses the method of processing image data according to claim 1 further comprising additional steps of:

a) further determining an image intensity level (Fig. 1, num. 45: CCD SIGNAL PROCESSOR performs a shading correction in col. 3, lines 34-36.) of the portion (Fig. 2.num. 43 is a portion of an image to be corrected by fig. 1,num. 45: CCD SIGNAL PROCESSOR.) of the image data (fig. 1, num. 43: CCD LINE SENSOR) prior (as shown in fig. 1.) to said applying step (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT which is applied via num. 82 and corresponds to fig. 1,num. 46.); and

b) selecting said correction coefficient (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT.) from said set of said predetermined correction coefficients (fig. 3, num. 49: CONT. COEF. INPUT UNIT) based upon said outline characteristic (Output of fig. 3, num. 77:COMPAR. generates edge data.) and said image intensity level (Fig. 1, num. 45: CCD SIGNAL PROCESSOR performs a shading correction in col. 3, lines 34-36 and is inputted into fig. 1,num. 46.).

Regarding claim 12, Ueta et al. discloses the method of processing image data according to claim 11 wherein said predetermined correction coefficients (fig. 3, num. 49: CONT. COEF. INPUT UNIT contains "a preset...coefficient" in col. 4, lines 2-4.) are previously stored in a table (Fig. 1,num. 55: ROM contains "parameters...[that] set the...coefficient...." in col. 10, lines 27-30. Thus, fig. 1,num. 55: ROM generates a preset coefficient based on parameters.).

Regarding claim 13, Ueta et al. does not teach the limitation of claim 13, but does suggest a scanning direction to obtain an edge as shown in fig. 2 and suggests other methods of obtaining an edge using "relative adjacent elements in a spatial arrangement...(col. 11, lines 3-5)." Thus, a spatial arrangement can contain a direction between two elements.

Claim 16 is rejected the same as claim 2. Thus, argument similar to that presented above for claim 2 is equally applicable to claim 16.

Regarding claim 17, Ueta et al. discloses the system for processing image data according to claim 16 further comprising a precorrection unit (Fig. 1,num. 45: CCS SIGANL PROCESSOR performs a shading correction in col. 3, lines 34-36) connected to said scanner (fig. 1, num. 43: CCD LINE SENSOR), and said space filter process unit (fig. 1,num. 46 is an "edge contrast unit" in col. 3, line 41.) for correcting the scanned image data (fig. 1, num. 43: CCD LINE SENSOR captures an image) to generate preprocessed image data (Output of fig. 1,num. 45) prior to outputting the preprocessed image data to said space filter process unit (fig. 1,num. 46).

Claims 21 and 22 are rejected the same as claim 7. Thus, argument similar to that presented above for claim 7 is equally applicable to claims 21 and 22.

Claim 23 is rejected the same as claim 9. Thus, argument similar to that presented above for claim 9 is equally applicable to claim 23.

Claim 24 is rejected the same as claim 10. Thus, argument similar to that presented above for claim 10 is equally applicable to claim 24.

Regarding claim 25, Ueta et al. of the combination teaches the system for processing image data according to claim 15 wherein

a) said space filter process unit (fig. 1,num. 46 is an "edge contrast unit" in col. 3, line 41.) further determines an image intensity level (fig. 1,num. 46 shown in detail in fig. 3 determines an image intensity level at fig. 3,num. 47 based upon a shaded corrected signal from fig. 1,num. 45.) of the portion (Fig. 2.num. 43 is a portion of an image.) of the image data (fig. 1, num. 43: CCD LINE SENSOR) prior (as shown in fig. 1.) to applying (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT which is applied via num. 82 and corresponds to fig. 1,num. 46.) the selected correction coefficient (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT which is applied via num. 82.); and

b) The remaining limitation was rejected in claim 11.

Regarding claim 26, Ueta et al. of the combination teaches the system for processing image data according to claim 25 further comprises a storage unit (fig. 3,num. 81: CONT COEF. OUTPUT UNIT stores coefficients.) connected (via numerals 79,77,76,74,75 and 71-73) to said intensity correction unit (Fig. 1,num. 45.) for storing the predetermined correction coefficients in a table format (fig. 3, num. 49: CONT. COEF. INPUT UNIT contains "a preset...coefficient" in col. 4, lines 2-4 that are inputted to storage 81.).

Claim 27 is rejected the same as claim 13. Thus, argument similar to that presented above for claim 13 is equally applicable to claim 27.

Claim 29 has been addressed in claims 1 and 15 except for the limitation of a storage medium for storing computer readable instructions which are disclosed in Ueta et al. in col. 3, line 60: "programs stored in RAM").

Claim 30 is rejected the same as claim 2. Thus, argument similar to that presented above for claim 2 is equally applicable to claim 30.

Claim 31 is rejected the same as claim 3. Thus, argument similar to that presented above for claim 3 is equally applicable to claim 31.

Claims 32 and 33 are rejected the same as claim 4. Thus, argument similar to that presented above for claim 4 is equally applicable to claim 32 and 33.

Claim 34 is rejected the same as claim 7. Thus, argument similar to that presented above for claim 7 is equally applicable to claim 34.

Claim 35 is rejected the same as claim 8. Thus, argument similar to that presented above for claim 8 is equally applicable to claim 35.

Claim 36 is rejected the same as claim 9. Thus, argument similar to that presented above for claim 9 is equally applicable to claim 36.

Claim 37 are rejected the same as claim 10. Thus, argument similar to that presented above for claim 10 is equally applicable to claim 37.

Claim 38 is rejected the same as claim 11. Thus, argument similar to that presented above for claim 11 is equally applicable to claim 38.

Claim 39 is rejected the same as claim 12. Thus, argument similar to that presented above for claim 12 is equally applicable to claim 39.

Claim 40 is rejected the same as claim 13. Thus, argument similar to that

presented above for claim 13 is equally applicable to claim 40.

Claims 42-44 are rejected the same as claims 12 and 25. Thus, argument similar to that presented above for claims 12 and 25 are equally applicable to claims 42-44.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueta et al. (US Patent 5,748,800 A) in view of Kawamura et al. (US Patent 6,563,537 B1).

Regarding claim 45, Ueta et al. does not teach the limitation of an outline characteristic includes a right edge, a left edge, a horizontal edge and a vertical edge, but does suggest a scanning direction to obtain an edge as shown in fig. 2 and suggests other methods of obtaining an edge using "relative adjacent elements in a spatial arrangement...(col. 11, lines 3-5)." Thus, Ueta suggest a spatial arrangement can contain a direction between two elements.

Kawamura et al. teaches the spatial arrangement as suggested by Ueta et al. as shown in fig. 1, label PN2h that shows two horizontal edges with a space between and the remaining limitation of an outline characteristic (or "block pattern" in col. 7, line 29 as shown in fig. 1, labels PN1h,PN1v,PN0,PN2h and PN2v) that includes a vertical edge (fig. 1, labels PN1v and PN2v),a horizontal edge (fig. 1, PN1h,PN2h), right and left edges (correspond to fig. 1, labels PN1h and PN2h which are horizontal edges that contain an "upper left pixel" in col. 8, lines 41 and col. 9, line 1 or "upper right" in col. 9, line 2 which are interpreted as upper left edge pixel or upper right edge pixel since the upper left pixel or the upper right pixel corresponds to a portion of said horizontal edge.).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Ueta et al.'s teaching of a scanning direction and relative adjacent elements with Kawamura et al.'s teaching of determining an edge with direction, because Kawamura et al.'s teaching "properly interpolate[es] image signals having various patterns (Kawamura et al., col. 2, lines 65-67)."

Claims 46 and 47 are rejected the same as claim 45. Thus, argument similar to that presented above for claim 45 is equally applicable to claims 46 and 47.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hirota (US Patent 5,357,353) is pertinent as teaching a method edge detection




(fig. 6, num. 84) with a plurality of thresholds (fig. 7: REF0-4 that can be "set" in col. 18, line 2) followed by correction (fig. 6, num. 85) that is a function of coefficients (as indicated in fig. 10, num. 344).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario whose telephone number is (571) 272-7397. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DR  
Dennis Rosario  
Unit 2624



MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600